We claim:

1. A coating having a plurality of triggered responses comprising: one or more radiation sensitive polyelectrolytes covering a substrate; wherein the coating is triggered upon exposing the coating to ultraviolet radiation to provide a stable, highly cross-linked and water resistant coating; wherein the radiation sensitive polyelectrolytes also include functional monomers having chemically reactive or swellable functional groups such that the coating, when in contact a basic chemical stripper trigger the coating to respond by destabilizing, dissolving, swelling or dispersing.

2. The coating according to claim 1 wherein the radiation sensitive polyelectrolyte is a multi-stage emulsion polymer and comprises, as polymerized monomer units (a) zero to 60 percent, based on weight of the polymer, of a mono-ethylenically unsaturated monomer containing a carboxylic acid functional group; (b) 1 to 80 percent, based on weight of the polymer, of a (meth)acrylic monomer containing functional groups selected from one or more monoethylenically unsaturated monoepoxides, glycidyl (meth)acrylate, allyl glycidyl ether, glycidyl cinnamates, glycidyl crotonates, glycidyl itaconates, glycidyl norbornenyl ester, glycidyl norbornenyl ether and other acrylate containing pendant vinyl groups; (c) 20 to 80 percent, based on weight of the polymer, of one or more (C_1-C_{20})alkyl (meth)acrylate ester monomers; and (e) zero to 10 percent, based on weight of the polymer, of one or more other co-polymerizable monomers.

3. The coating of claim 1 wherein the UV curable, removable composition is included within one or more layers applied on top of a substrate.

4. The coating of claim 1 wherein the UV curable, removable composition is included within one or more layers applied on top of a base coat, the base coat disposed on top of a substrate.

5. The coating of claim 3 or claim 4 wherein the substrate refers to any surface that is vertical, horizontal or inclined upon which the coating is applied and is selected from the group consisting of flooring, wall, ceiling, tile materials, vinyl floor tiles, tiles coated with sealer or primer, ceramic tiles, wood, metal, concrete, marble, slate and simulated natural stone.

6. A method for triggering a coating composition to form a highly cross-linked, durable coating over a substrate and subsequently triggering removal of the coating composition from the substrate comprising the steps of:

(a) covering a substrate with one or more layers of a coating comprising a radiation sensitive polyelectrolyte;

(b) triggering the coating with UV radiation to form a highly cross-linked coating over the substrate; and

(c) triggering the coating to release from the substrate by contacting the coating with one or more chemical strippers, wherein the coating responds by destabilizing, dissolving, swelling or dispersing.

7. The method according to claim 6 wherein the radiation sensitive polyelectrolyte is a curable, removable multi-stage emulsion polymer comprising, as polymerized monomer units (a) zero to 60 percent, based on weight of the polymer, of a mono-ethylenically unsaturated monomer containing a carboxylic acid functional group; (b) 1 to 80 percent, based on weight of the polymer, of a (meth)acrylic monomer containing functional groups selected from one or more monoethylenically unsaturated monoepoxides, glycidyl (meth)acrylate, allyl glycidyl ether, glycidyl cinnamates, glycidyl crotonates, glycidyl itaconates, glycidyl norbornenyl ester, glycidyl norbornenyl ether and other acrylate containing pendant vinyl groups; (c) 20 to 80 percent, based on weight of the polymer, of one or more (C_1-C_{20})alkyl (meth)acrylate ester monomers; and (e) zero to 10 percent, based on weight of the polymer, of one or more other co-polymerizable monomers.

8. The method according to claim 6 wherein the UV curable, removable composition is included within one or more layers applied on top of a substrate.

9. The method according to claim 6 wherein the UV curable, removable composition is included within one or more layers applied on top of a base coat, the base coat disposed on top of a substrate.

10. The method according to claim 8 or claim 9 wherein the substrate refers to any surface that is vertical, horizontal or inclined upon which the coating is applied and is selected from the group consisting of flooring, wall, ceiling, tile materials, vinyl floor tiles, tiles coated with sealer or primer, ceramic tiles, wood, metal, concrete, marble, slate and simulated natural stone.